

**This Page is Inserted by IFW Indexing and Scanning
Operations and is not part of the Official Record**

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images include but are not limited to the items checked:

- ☐ BLACK BORDERS
- ☐ IMAGE CUT OFF AT TOP, BOTTOM OR SIDES
- ☐ FADED TEXT OR DRAWING
- ☐ BLURRED OR ILLEGIBLE TEXT OR DRAWING
- ☐ SKEWED/SLANTED IMAGES
- ☐ COLOR OR BLACK AND WHITE PHOTOGRAPHS
- ☐ GRAY SCALE DOCUMENTS
- ☐ LINES OR MARKS ON ORIGINAL DOCUMENT
- ☐ REFERENCE(S) OR EXHIBIT(S) SUBMITTED ARE POOR QUALITY
- ☐ OTHER: _____

IMAGES ARE BEST AVAILABLE COPY.

As rescanning these documents will not correct the image problems checked, please do not report these problems to the IFW Image Problem Mailbox.

Refine Search

Search Results -

Terms	Documents
L16 and (metadata or (meta near data))	5

Database:

US Pre-Grant Publication Full-Text Database
 US Patents Full-Text Database
 US OCR Full-Text Database
 EPO Abstracts Database
 JPO Abstracts Database
 Derwent World Patents Index
 IBM Technical Disclosure Bulletins

Search:

707/203.ccls

Refine Search

Recall Text

Clear

Interrupt

Search History

DATE: Friday, September 17, 2004 [Printable Copy](#) [Create Case](#)

Set Name	Query	Hit Count	Set Name result set
DB=PGPB,USPT,USOC,EPAB,JPAB,DWPI,TDBD; PLUR=YES; OP=OR			
<u>L17</u>	L16 and (metadata or (meta near data))	5	<u>L17</u>
<u>L16</u>	L15 and (external\$ near stor\$3)	39	<u>L16</u>
<u>L15</u>	707/8.ccls.	779	<u>L15</u>
<u>L14</u>	L13 and (object\$1 same (metadata or (meta near data)))	6	<u>L14</u>
<u>L13</u>	L11 and L12	12	<u>L13</u>
<u>L12</u>	"maintaining consistency"	1299	<u>L12</u>
<u>L11</u>	"transaction model"	397	<u>L11</u>
<u>L10</u>	((maintain\$3 near consistency) same (transaction near model)).clm.	1	<u>L10</u>
<u>L9</u>	((maintain\$3 near consistency) same (transaction near model)).ab.	1	<u>L9</u>
<u>L8</u>	((maintain\$3 near consistency) same (transaction near model)).ti.	0	<u>L8</u>
<u>L7</u>	L6 and (version near number)	8	<u>L7</u>
<u>L6</u>	L5 and version	9	<u>L6</u>
<u>L5</u>	L4 and (timestamp\$ or (time adj stamp\$))	10	<u>L5</u>

<u>L4</u>	L3 and (external\$ near stor\$3)	18	<u>L4</u>
<u>L3</u>	L2 and (object\$1 same (metadata or (meta near data)))	139	<u>L3</u>
<u>L2</u>	maintain\$3 near consistency	4838	<u>L2</u>
<u>L1</u>	(maintain\$3 near consistency) same object\$1 same (metadata or (meta near data))	11	<u>L1</u>

END OF SEARCH HISTORY

Refine Search

Search Results -

Terms	Documents
L24 and access\$3	3

Database:

US Pre-Grant Publication Full-Text Database
 US Patents Full-Text Database
 US OCR Full-Text Database
 EPO Abstracts Database
 JPO Abstracts Database
 Derwent World Patents Index
 IBM Technical Disclosure Bulletins

Search:

L25

Refine Search

Recall Text

Clear

Interrupt

Search History

DATE: Friday, September 17, 2004 [Printable Copy](#) [Create Case](#)

<u>Set</u> <u>Name</u> side by side	<u>Query</u>	<u>Hit</u> <u>Count</u>	<u>Set</u> <u>Name</u> result set
<i>DB=PGPB,USPT,USOC,EPAB,JPAB,DWPI,TDBD; PLUR=YES; OP=OR</i>			
<u>L25</u>	L24 and access\$3	3	<u>L25</u>
<u>L24</u>	L23 and updat\$3	3	<u>L24</u>
<u>L23</u>	L22 and L18	3	<u>L23</u>
<u>L22</u>	(L19 or L20) and L21	11	<u>L22</u>
<u>L21</u>	(maintain\$3 near consistency) same (metadata or (meta near data))	62	<u>L21</u>
<u>L20</u>	(maintain\$3 near consistency) same object\$1	554	<u>L20</u>
<u>L19</u>	(maintain\$3 near consistency) same (extern\$ near stor\$3)	10	<u>L19</u>
<u>L18</u>	707/203.ccls.	1083	<u>L18</u>
<u>L17</u>	L16 and (metadata or (meta near data))	5	<u>L17</u>
<u>L16</u>	L15 and (external\$ near stor\$3)	39	<u>L16</u>
<u>L15</u>	707/8.ccls.	779	<u>L15</u>
<u>L14</u>	L13 and (object\$1 same (metadata or (meta near data)))	6	<u>L14</u>
<u>L13</u>	L11 and L12	12	<u>L13</u>

<u>L12</u>	"maintaining consistency"	1299	<u>L12</u>
<u>L11</u>	"transaction model"	397	<u>L11</u>
<u>L10</u>	((maintain\$3 near consistency) same (transaction near model)).clm.	1	<u>L10</u>
<u>L9</u>	((maintain\$3 near consistency) same (transaction near model)).ab.	1	<u>L9</u>
<u>L8</u>	((maintain\$3 near consistency) same (transaction near model)).ti.	0	<u>L8</u>
<u>L7</u>	L6 and (version near number)	8	<u>L7</u>
<u>L6</u>	L5 and version	9	<u>L6</u>
<u>L5</u>	L4 and (timestamp\$ or (time adj stamp\$))	10	<u>L5</u>
<u>L4</u>	L3 and (external\$ near stor\$3)	18	<u>L4</u>
<u>L3</u>	L2 and (object\$1 same (metadata or (meta near data)))	139	<u>L3</u>
<u>L2</u>	maintain\$3 near consistency	4838	<u>L2</u>
<u>L1</u>	(maintain\$3 near consistency) same object\$1 same (metadata or (meta near data))	11	<u>L1</u>

END OF SEARCH HISTORY

Refine Search

Search Results -

Terms	Documents
L29 and L12	1

Database:

US Pre-Grant Publication Full-Text Database
 US Patents Full-Text Database
 US OCR Full-Text Database
 EPO Abstracts Database
 JPO Abstracts Database
 Derwent World Patents Index
 IBM Technical Disclosure Bulletins

Search:

L30

Refine Search

Recall Text

Clear

Interrupt

Search History

DATE: Friday, September 17, 2004 [Printable Copy](#) [Create Case](#)

<u>Set</u> <u>Name</u> side by side	<u>Query</u>	<u>Hit</u> <u>Count</u>	<u>Set</u> <u>Name</u> result set
<i>DB=PGPB,USPT,USOC,EPAB,JPAB,DWPI,TDBD; PLUR=YES; OP=OR</i>			
<u>L30</u>	L29 and L12	1	<u>L30</u>
<u>L29</u>	L27 and L28	18	<u>L29</u>
<u>L28</u>	consistent near object\$1	1178	<u>L28</u>
<u>L27</u>	embed\$ same version\$	5001	<u>L27</u>
<u>L26</u>	"loose transaction model"	2	<u>L26</u>
<u>L25</u>	L24 and access\$3	3	<u>L25</u>
<u>L24</u>	L23 and updat\$3	3	<u>L24</u>
<u>L23</u>	L22 and L18	3	<u>L23</u>
<u>L22</u>	(L19 or L20) and L21	11	<u>L22</u>
<u>L21</u>	(maintain\$3 near consistency) same (metadata or (meta near data))	62	<u>L21</u>
<u>L20</u>	(maintain\$3 near consistency) same object\$1	554	<u>L20</u>
<u>L19</u>	(maintain\$3 near consistency) same (extern\$ near stor\$3)	10	<u>L19</u>
<u>L18</u>	707/203.ccls.	1083	<u>L18</u>

<u>L17</u>	L16 and (metadata or (meta near data))	5	<u>L17</u>
<u>L16</u>	L15 and (external\$ near stor\$3)	39	<u>L16</u>
<u>L15</u>	707/8.ccls.	779	<u>L15</u>
<u>L14</u>	L13 and (object\$1 same (metadata or (meta near data)))	6	<u>L14</u>
<u>L13</u>	L11 and L12	12	<u>L13</u>
<u>L12</u>	"maintaining consistency"	1299	<u>L12</u>
<u>L11</u>	"transaction model"	397	<u>L11</u>
<u>L10</u>	((maintain\$3 near consistency) same (transaction near model)).clm.	1	<u>L10</u>
<u>L9</u>	((maintain\$3 near consistency) same (transaction near model)).ab.	1	<u>L9</u>
<u>L8</u>	((maintain\$3 near consistency) same (transaction near model)).ti.	0	<u>L8</u>
<u>L7</u>	L6 and (version near number)	8	<u>L7</u>
<u>L6</u>	L5 and version	9	<u>L6</u>
<u>L5</u>	L4 and (timestamp\$ or (time adj stamp\$))	10	<u>L5</u>
<u>L4</u>	L3 and (external\$ near stor\$3)	18	<u>L4</u>
<u>L3</u>	L2 and (object\$1 same (metadata or (meta near data)))	139	<u>L3</u>
<u>L2</u>	maintain\$3 near consistency	4838	<u>L2</u>
<u>L1</u>	((maintain\$3 near consistency) same object\$1 same (metadata or (meta near data)))	11	<u>L1</u>

END OF SEARCH HISTORY

Refine Search

Search Results -

Terms	Documents
L30 and (extern\$ near stor\$3)	0

Database:

US Pre-Grant Publication Full-Text Database
 US Patents Full-Text Database
 US OCR Full-Text Database
 EPO Abstracts Database
 JPO Abstracts Database
 Derwent World Patents Index
 IBM Technical Disclosure Bulletins

Search:

Search History

DATE: Friday, September 17, 2004 [Printable Copy](#) [Create Case](#)

Set Name	Query	Hit Count	Set Name result set
<i>DB=PGPB,USPT,USOC,EPAB,JPAB,DWPI,TDBD; PLUR=YES; OP=OR</i>			
<u>L31</u>	L30 and (extern\$ near stor\$3)	0	<u>L31</u>
<u>L30</u>	L29 and L12	1	<u>L30</u>
<u>L29</u>	L27 and L28	18	<u>L29</u>
<u>L28</u>	consistent near object\$1	1178	<u>L28</u>
<u>L27</u>	embed\$ same version\$	5001	<u>L27</u>
<u>L26</u>	"loose transaction model"	2	<u>L26</u>
<u>L25</u>	L24 and access\$3	3	<u>L25</u>
<u>L24</u>	L23 and updat\$3	3	<u>L24</u>
<u>L23</u>	L22 and L18	3	<u>L23</u>
<u>L22</u>	(L19 or L20) and L21	11	<u>L22</u>
<u>L21</u>	(maintain\$3 near consistency) same (metadata or (meta near data))	62	<u>L21</u>
<u>L20</u>	(maintain\$3 near consistency) same object\$1	554	<u>L20</u>
<u>L19</u>	(maintain\$3 near consistency) same (extern\$ near stor\$3)	10	<u>L19</u>

137
9.17.04

<u>L18</u>	707/203.ccls.	1083	<u>L18</u>
<u>L17</u>	L16 and (metadata or (meta near data))	5	<u>L17</u>
<u>L16</u>	L15 and (external\$ near stor\$3)	39	<u>L16</u>
<u>L15</u>	707/8.ccls.	779	<u>L15</u>
<u>L14</u>	L13 and (object\$1 same (metadata or (meta near data)))	6	<u>L14</u>
<u>L13</u>	L11 and L12	12	<u>L13</u>
<u>L12</u>	"maintaining consistency"	1299	<u>L12</u>
<u>L11</u>	"transaction model"	397	<u>L11</u>
<u>L10</u>	((maintain\$3 near consistency) same (transaction near model)).clm.	1	<u>L10</u>
<u>L9</u>	((maintain\$3 near consistency) same (transaction near model)).ab.	1	<u>L9</u>
<u>L8</u>	((maintain\$3 near consistency) same (transaction near model)).ti.	0	<u>L8</u>
<u>L7</u>	L6 and (version near number)	8	<u>L7</u>
<u>L6</u>	L5 and version	9	<u>L6</u>
<u>L5</u>	L4 and (timestamp\$ or (time adj stamp\$))	10	<u>L5</u>
<u>L4</u>	L3 and (external\$ near stor\$3)	18	<u>L4</u>
<u>L3</u>	L2 and (object\$1 same (metadata or (meta near data)))	139	<u>L3</u>
<u>L2</u>	maintain\$3 near consistency	4838	<u>L2</u>
<u>L1</u>	(maintain\$3 near consistency) same object\$1 same (metadata or (meta near data))	11	<u>L1</u>

END OF SEARCH HISTORY

Refine Search

Search Results -

Terms	Documents
L38 and (external\$ near stor\$3)	2

Database:

US Pre-Grant Publication Full-Text Database
 US Patents Full-Text Database
 US OCR Full-Text Database
 EPO Abstracts Database
 JPO Abstracts Database
 Derwent World Patents Index
 IBM Technical Disclosure Bulletins

Search:

Search History

DATE: Friday, September 17, 2004 [Printable Copy](#) [Create Case](#)

<u>Set Name</u> side by side	<u>Query</u>	<u>Hit Count</u>	<u>Set Name</u> result set
<i>DB=PGPB,USPT,USOC,EPAB,JPAB,DWPI,TDBD; PLUR=YES; OP=OR</i>			
<u>L39</u>	L38 and (external\$ near stor\$3)	2	<u>L39</u>
<u>L38</u>	L37 and L27	2	<u>L38</u>
<u>L37</u>	(L32 or L33 or L34 or L35 or L36) and L21	42	<u>L37</u>
<u>L36</u>	717/170.ccls.	323	<u>L36</u>
<u>L35</u>	709/213-214.ccls.	995	<u>L35</u>
<u>L34</u>	709/203.ccls.	4647	<u>L34</u>
<u>L33</u>	709/201.ccls.	1499	<u>L33</u>
<u>L32</u>	707/\$.ccls.	22448	<u>L32</u>
<u>L31</u>	L30 and (extern\$ near stor\$3)	0	<u>L31</u>
<u>L30</u>	L29 and L12	1	<u>L30</u>
<u>L29</u>	L27 and L28	18	<u>L29</u>
<u>L28</u>	consistent near object\$1	1178	<u>L28</u>
<u>L27</u>	embed\$ same version\$	5001	<u>L27</u>

<u>L26</u>	"loose transaction model"	2	<u>L26</u>
<u>L25</u>	L24 and access\$3	3	<u>L25</u>
<u>L24</u>	L23 and updat\$3	3	<u>L24</u>
<u>L23</u>	L22 and L18	3	<u>L23</u>
<u>L22</u>	(L19 or L20) and L21	11	<u>L22</u>
<u>L21</u>	(maintain\$3 near consistency) same (metadata or (meta near data))	62	<u>L21</u>
<u>L20</u>	(maintain\$3 near consistency) same object\$1	554	<u>L20</u>
<u>L19</u>	(maintain\$3 near consistency) same (extern\$ near stor\$3)	10	<u>L19</u>
<u>L18</u>	707/203.ccls.	1083	<u>L18</u>
<u>L17</u>	L16 and (metadata or (meta near data))	5	<u>L17</u>
<u>L16</u>	L15 and (external\$ near stor\$3)	39	<u>L16</u>
<u>L15</u>	707/8.ccls.	779	<u>L15</u>
<u>L14</u>	L13 and (object\$1 same (metadata or (meta near data)))	6	<u>L14</u>
<u>L13</u>	L11 and L12	12	<u>L13</u>
<u>L12</u>	"maintaining consistency"	1299	<u>L12</u>
<u>L11</u>	"transaction model"	397	<u>L11</u>
<u>L10</u>	((maintain\$3 near consistency) same (transaction near model)).clm.	1	<u>L10</u>
<u>L9</u>	((maintain\$3 near consistency) same (transaction near model)).ab.	1	<u>L9</u>
<u>L8</u>	((maintain\$3 near consistency) same (transaction near model)).ti.	0	<u>L8</u>
<u>L7</u>	L6 and (version near number)	8	<u>L7</u>
<u>L6</u>	L5 and version	9	<u>L6</u>
<u>L5</u>	L4 and (timestamp\$ or (time adj stamp\$))	10	<u>L5</u>
<u>L4</u>	L3 and (external\$ near stor\$3)	18	<u>L4</u>
<u>L3</u>	L2 and (object\$1 same (metadata or (meta near data)))	139	<u>L3</u>
<u>L2</u>	maintain\$3 near consistency	4838	<u>L2</u>
<u>L1</u>	(maintain\$3 near consistency) same object\$1 same (metadata or (meta near data))	11	<u>L1</u>

END OF SEARCH HISTORY

Refine Search

Search Results -

Terms	Documents
L39 and (embed\$ same (current near version))	1

Database:

US Pre-Grant Publication Full-Text Database
 US Patents Full-Text Database
 US OCR Full-Text Database
 EPO Abstracts Database
 JPO Abstracts Database
 Derwent World Patents Index
 IBM Technical Disclosure Bulletins

Search:

L40

Refine Search

Recall Text

Clear

Interrupt

Search History

DATE: Friday, September 17, 2004 [Printable Copy](#) [Create Case](#)

<u>Set</u> <u>Name</u> side by side	<u>Query</u>	<u>Hit</u> <u>Count</u>	<u>Set</u> <u>Name</u> result set
<i>DB=PGPB,USPT,USOC,EPAB,JPAB,DWPI,TDBD; PLUR=YES; OP=OR</i>			
<u>L40</u>	L39 and (embed\$ same (current near version))	1	<u>L40</u>
<u>L39</u>	L38 and (external\$ near stor\$3)	2	<u>L39</u>
<u>L38</u>	L37 and L27	2	<u>L38</u>
<u>L37</u>	(L32 or L33 or L34 or L35 or L36) and L21	42	<u>L37</u>
<u>L36</u>	717/170.ccls.	323	<u>L36</u>
<u>L35</u>	709/213-214.ccls.	995	<u>L35</u>
<u>L34</u>	709/203.ccls.	4647	<u>L34</u>
<u>L33</u>	709/201.ccls.	1499	<u>L33</u>
<u>L32</u>	707/\$.ccls.	22448	<u>L32</u>
<u>L31</u>	L30 and (extern\$ near stor\$3)	0	<u>L31</u>
<u>L30</u>	L29 and L12	1	<u>L30</u>
<u>L29</u>	L27 and L28	18	<u>L29</u>
<u>L28</u>	consistent near object\$1	1178	<u>L28</u>

<u>L27</u>	embed\$ same version\$	5001	<u>L27</u>
<u>L26</u>	"loose transaction model"	2	<u>L26</u>
<u>L25</u>	L24 and access\$3	3	<u>L25</u>
<u>L24</u>	L23 and updat\$3	3	<u>L24</u>
<u>L23</u>	L22 and L18	3	<u>L23</u>
<u>L22</u>	(L19 or L20) and L21	11	<u>L22</u>
<u>L21</u>	(maintain\$3 near consistency) same (metadata or (meta near data))	62	<u>L21</u>
<u>L20</u>	(maintain\$3 near consistency) same object\$1	554	<u>L20</u>
<u>L19</u>	(maintain\$3 near consistency) same (extern\$ near stor\$3)	10	<u>L19</u>
<u>L18</u>	707/203.ccls.	1083	<u>L18</u>
<u>L17</u>	L16 and (metadata or (meta near data))	5	<u>L17</u>
<u>L16</u>	L15 and (external\$ near stor\$3)	39	<u>L16</u>
<u>L15</u>	707/8.ccls.	779	<u>L15</u>
<u>L14</u>	L13 and (object\$1 same (metadata or (meta near data)))	6	<u>L14</u>
<u>L13</u>	L11 and L12	12	<u>L13</u>
<u>L12</u>	"maintaining consistency"	1299	<u>L12</u>
<u>L11</u>	"transaction model"	397	<u>L11</u>
<u>L10</u>	((maintain\$3 near consistency) same (transaction near model)).clm.	1	<u>L10</u>
<u>L9</u>	((maintain\$3 near consistency) same (transaction near model)).ab.	1	<u>L9</u>
<u>L8</u>	((maintain\$3 near consistency) same (transaction near model)).ti.	0	<u>L8</u>
<u>L7</u>	L6 and (version near number)	8	<u>L7</u>
<u>L6</u>	L5 and version	9	<u>L6</u>
<u>L5</u>	L4 and (timestamp\$ or (time adj stamp\$))	10	<u>L5</u>
<u>L4</u>	L3 and (external\$ near stor\$3)	18	<u>L4</u>
<u>L3</u>	L2 and (object\$1 same (metadata or (meta near data)))	139	<u>L3</u>
<u>L2</u>	maintain\$3 near consistency	4838	<u>L2</u>
<u>L1</u>	(maintain\$3 near consistency) same object\$1 same (metadata or (meta near data))	11	<u>L1</u>

END OF SEARCH HISTORY

[IEEE HOME](#) | [SEARCH IEEE](#) | [SHOP](#) | [WEB ACCOUNT](#) | [CONTACT IEEE](#)[Membership](#) | [Publications/Services](#) | [Standards](#) | [Conferences](#) | [Careers/Jobs](#)**IEEE Xplore®**
RELEASE 1.8Welcome
United States Patent and Trademark Office

>> Sea

[Help](#) | [FAQ](#) | [Terms](#) | [IEEE Peer Review](#)[Quick Links](#)

Welcome to IEEE Xplore®

- ☐ Home
- ☐ What Can I Access?
- ☐ Log-out

Tables of Contents

- ☐ Journals & Magazines
- ☐ Conference Proceedings
- ☐ Standards

Search

- ☐ By Author
- ☐ Basic
- ☐ Advanced

Member Services

- ☐ Join IEEE
- ☐ Establish IEEE Web Account
- ☐ Access the IEEE Member Digital Library

IEEE Enterprise

- ☐ Access the IEEE Enterprise File Cabinet

Print Format

[Home](#) | [Log-out](#) | [Journals](#) | [Conference Proceedings](#) | [Standards](#) | [Search by Author](#) | [Basic Search](#) | [Advanced Search](#) | [Join IEEE](#) | [Web Account](#) | [New this week](#) | [OPAC Linking Information](#) | [Your Feedback](#) | [Technical Support](#) | [Email Alerting](#) | [No Robots Please](#) | [Release Notes](#) | [IEEE Online Publications](#) | [Help](#) | [FAQ](#) | [Terms](#) | [Back to Top](#)

Copyright © 2004 IEEE — All rights reserved

Your search matched **0** of **1071730** documents.A maximum of **500** results are displayed, **15** to a page, sorted by **Relevance Descending** order.**Refine This Search:**

You may refine your search by editing the current search expression or enter a new one in the text box.

☐ Check to search within this result set**Results Key:****JNL** = Journal or Magazine **CNF** = Conference **STD** = Standard**Results:****No documents matched your query.**

[IEEE HOME](#) | [SEARCH IEEE](#) | [SHOP](#) | [WEB ACCOUNT](#) | [CONTACT IEEE](#)[Membership](#) | [Publications/Services](#) | [Standards](#) | [Conferences](#) | [Careers/Jobs](#)**IEEE Xplore**
RELEASE 1.5Welcome
United States Patent and Trademark Office» [Sea](#)[Help](#) | [FAQ](#) | [Terms](#) | [IEEE Peer Review](#)[Quick Links](#)**Welcome to IEEE Xplore®**

- ☐ Home
- ☐ What Can I Access?
- ☐ Log-out

Tables of Contents

- ☐ Journals & Magazines
- ☐ Conference Proceedings
- ☐ Standards

Search

- ☐ By Author
- ☐ Basic
- ☐ Advanced

Member Services

- ☐ Join IEEE
- ☐ Establish IEEE Web Account
- ☐ Access the IEEE Member Digital Library

IEEE Enterprise

- ☐ Access the IEEE Enterprise File Cabinet

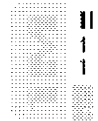
Your search matched **0** of **1071730** documents.A maximum of **500** results are displayed, **15** to a page, sorted by **Relevance Descending** order.**Refine This Search:**

You may refine your search by editing the current search expression or enter a new one in the text box.

☐ Check to search within this result set**Results Key:****JNL** = Journal or Magazine **CNF** = Conference **STD** = Standard**Results:****No documents matched your query.**

[Home](#) | [Log-out](#) | [Journals](#) | [Conference Proceedings](#) | [Standards](#) | [Search by Author](#) | [Basic Search](#) | [Advanced Search](#) | [Join IEEE](#) | [Web Account](#) | [New this week](#) | [OPAC Linking Information](#) | [Your Feedback](#) | [Technical Support](#) | [Email Alerting](#) | [No Robots Please](#) | [Release Notes](#) | [IEEE Online Publications](#) | [Help](#) | [FAQ](#) | [Terms](#) | [Back to Top](#)

Copyright © 2004 IEEE — All rights reserved

[IEEE HOME](#) | [SEARCH IEEE](#) | [SHOP](#) | [WEB ACCOUNT](#) | [CONTACT IEEE](#)[Membership](#) | [Publications/Services](#) | [Standards](#) | [Conferences](#) | [Careers/Jobs](#)**IEEE Xplore®**
RELEASE 1.8Welcome
United States Patent and Trademark Office» [Sea](#)[Help](#) | [FAQ](#) | [Terms](#) | [IEEE Peer Review](#)[Quick Links](#)**Welcome to IEEE Xplore®**

- ☐ Home
- ☐ What Can I Access?
- ☐ Log-out

Tables of Contents

- ☐ Journals & Magazines
- ☐ Conference Proceedings
- ☐ Standards

Search

- ☐ By Author
- ☐ Basic
- ☐ Advanced

Member Services

- ☐ Join IEEE
- ☐ Establish IEEE Web Account
- ☐ Access the IEEE Member Digital Library

IEEE Enterprise

- ☐ Access the IEEE Enterprise File Cabinet



Print Format

[Home](#) | [Log-out](#) | [Journals](#) | [Conference Proceedings](#) | [Standards](#) | [Search by Author](#) | [Basic Search](#) | [Advanced Search](#) | [Join IEEE](#) | [Web Account](#) | [New this week](#) | [OPAC Linking Information](#) | [Your Feedback](#) | [Technical Support](#) | [Email Alerting](#) | [No Robots Please](#) | [Release Notes](#) | [IEEE Online Publications](#) | [Help](#) | [FAQ](#) | [Terms](#) | [Back to Top](#)

Copyright © 2004 IEEE — All rights reserved

Your search matched **0** of **1071730** documents.A maximum of **500** results are displayed, **15** to a page, sorted by **Relevance Descending** order.**Refine This Search:**

You may refine your search by editing the current search expression or enter a new one in the text box.

☐ Check to search within this result set**Results Key:****JNL** = Journal or Magazine **CNF** = Conference **STD** = Standard**Results:****No documents matched your query.**